

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,934,053 B1
APPLICATION NO. : 09/487586
DATED : August 23, 2005
INVENTOR(S) : Lingappa K. Mestha and S. Dianat

Page 1 of 5

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

The Title Page, showing an illustrative figure, should be deleted and substitute therefor the attached title page.

Figure 1, change to the attached Figure 1;

Page 4, Figure 2, change to the attached Figure 2;

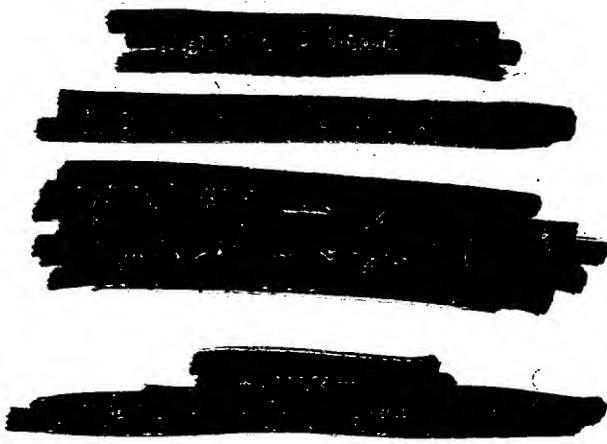
Page 5, Figure 3, change to the attached Figure 3;

Page 6, Figure 4, please delete.

PLEASE
SCAN
NEW
TITLE
PAGE

(NEW
PAGE 2 of 5)

Note
This certificate supersedes certificate of correction
issued September 8, 2009.





US006934053B1

(12) United States Patent
Mestha et al.

(10) Patent No.: US 6,934,053 B1
(45) Date of Patent: Aug. 23, 2005

(54) METHODS FOR PRODUCING DEVICE AND ILLUMINATION INDEPENDENT COLOR REPRODUCTION

(75) Inventors: Lingappa K. Mestha, Fairport, NY (US); Sohail A. Dianat, Pittsford, NY (US)

(73) Assignee: Xerox Corporation, Stamford, CT (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: 09/487,586

(22) Filed: Jan. 19, 2000

(51) Int. Cl.⁷ H04N 1/56; H04N 1/60

(52) U.S. Cl. 358/1.9; 358/504; 358/523

(58) Field of Search 358/1.9, 518, 504, 358/523, 501, 520, 521, 406, 530; 382/167, 312

(56) References Cited

U.S. PATENT DOCUMENTS

- | | | | |
|-------------|----------|-------------------|---------|
| 4,959,669 A | 9/1990 | Haneda et al. | 346/157 |
| 5,200,816 A | 4/1993 | Rose | 358/80 |
| 5,339,176 A | 8/1994 | Smilansky et al. | 358/504 |
| 5,357,448 A | 10/1994 | Stanford | 364/526 |
| 5,452,111 A | * 9/1995 | Giorgianni et al. | 358/504 |
| 5,481,380 A | * 1/1996 | Bestmann | 358/504 |
| 5,502,799 A | * 3/1996 | Tsuji et al. | 345/600 |
| 5,612,902 A | * 3/1997 | Stokes | 364/526 |
| 5,664,072 A | * 9/1997 | Ueda et al. | 395/109 |
| 5,671,059 A | * 9/1997 | Vincent | 356/402 |
| 5,708,916 A | * 1/1998 | Mestha | 399/49 |
| 5,771,311 A | 6/1998 | Arai | 382/162 |
| 5,809,213 A | 9/1998 | Bhattacharjya | 395/106 |
| 5,877,787 A | * 3/1999 | Edge | 347/19 |
| 5,903,712 A | * 5/1999 | Wang et al. | 358/1.9 |

(Continued)

FOREIGN PATENT DOCUMENTS

EP	0 491 131 A1	6/1992 G01J/3/51
EP	0582997 A1	2/1994 H04N/1/46
EP	0 625 847 A1	11/1994 H04N/1/46
EP	0 811 829 A2	12/1997 H04N/1/60
EP	0868074 A1	9/1998 H04N/1/60
EP	0 915 615 A2	5/1999 H04N/1/60
WO	WO 97/34409 A2	9/1997	

OTHER PUBLICATIONS

Berns, R.S. "Spectral Modeling of a Dye Diffusion Thermal Transfer Printer", Journal of Electronic Imaging, vol. 2, No. 4, Oct. 1993, pp. 359-370.

U.S. Appl. No. 09/487,587, filed Jan. 19, 2000, Yao Wang et al.

U.S. Appl. No. 09/221,996, filed Dec. 29, 1998, Lingappa K. Mestha et al.

U.S. Appl. No. 10/248,387, filed Jan. 15, 2003, Lalit K. Mestha et al.

U.S. Appl. No. 09/461,042, filed Dec. 15, 1999, Lingappa K. Mestha et al.

U.S. Appl. No. 09/566,291, filed May 5, 2000, Mestha et al.

Bens, R.S.: "Spectral modeling of a Dye Diffusion Thermal Transfer Printer", Journal of Electronic Imaging, vol. 2, No. 4, Oct. 1993, pp. 359-370.

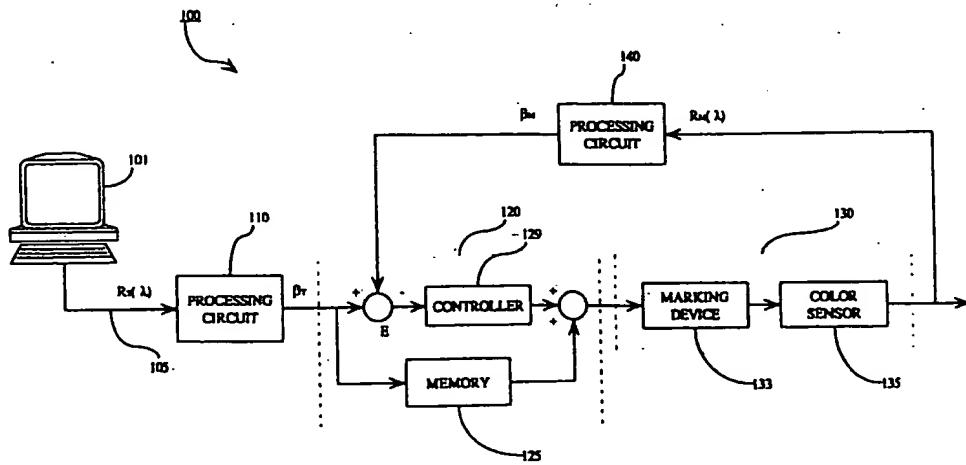
Primary Examiner—Scott A. Rogers

(74) Attorney, Agent, or Firm—Cliff & Berridge, PLC

(57) ABSTRACT

Spectrally matched color outputs are obtained using data from a real-time sensor, such as, for example, a spectrophotometer on the output trays of a marking devices to determine the output spectra of a reproduced image. The output spectra of the reproduced image is compared with an output spectra of a target spectra stored in a computer memory to produce a mapping table that will spectrally match all subsequently reproduced color images in real-time. Thus, output color spectra are matched between displays and prints, scans and prints, scans and displays, or copies and prints.

28 Claims, 3 Drawing Sheets



U.S. Patent

Aug. 23, 2005

Sheet 1 of 3

6,934,053 B1

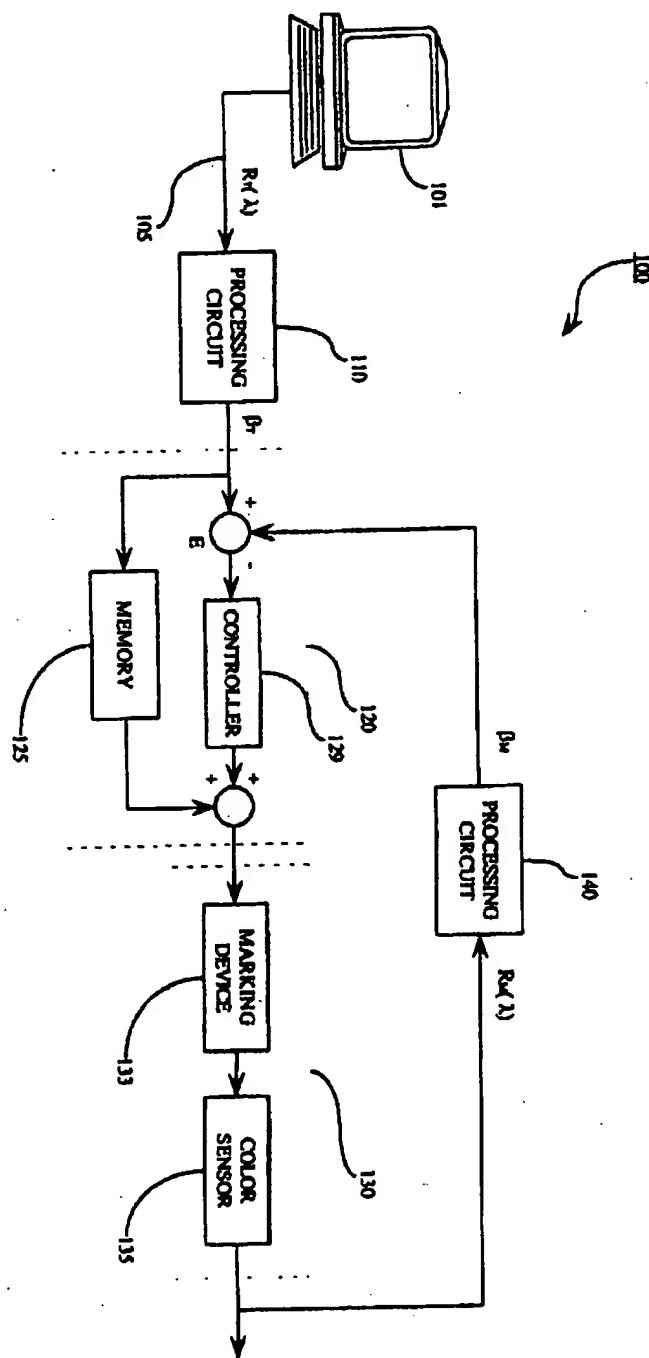


FIG.1

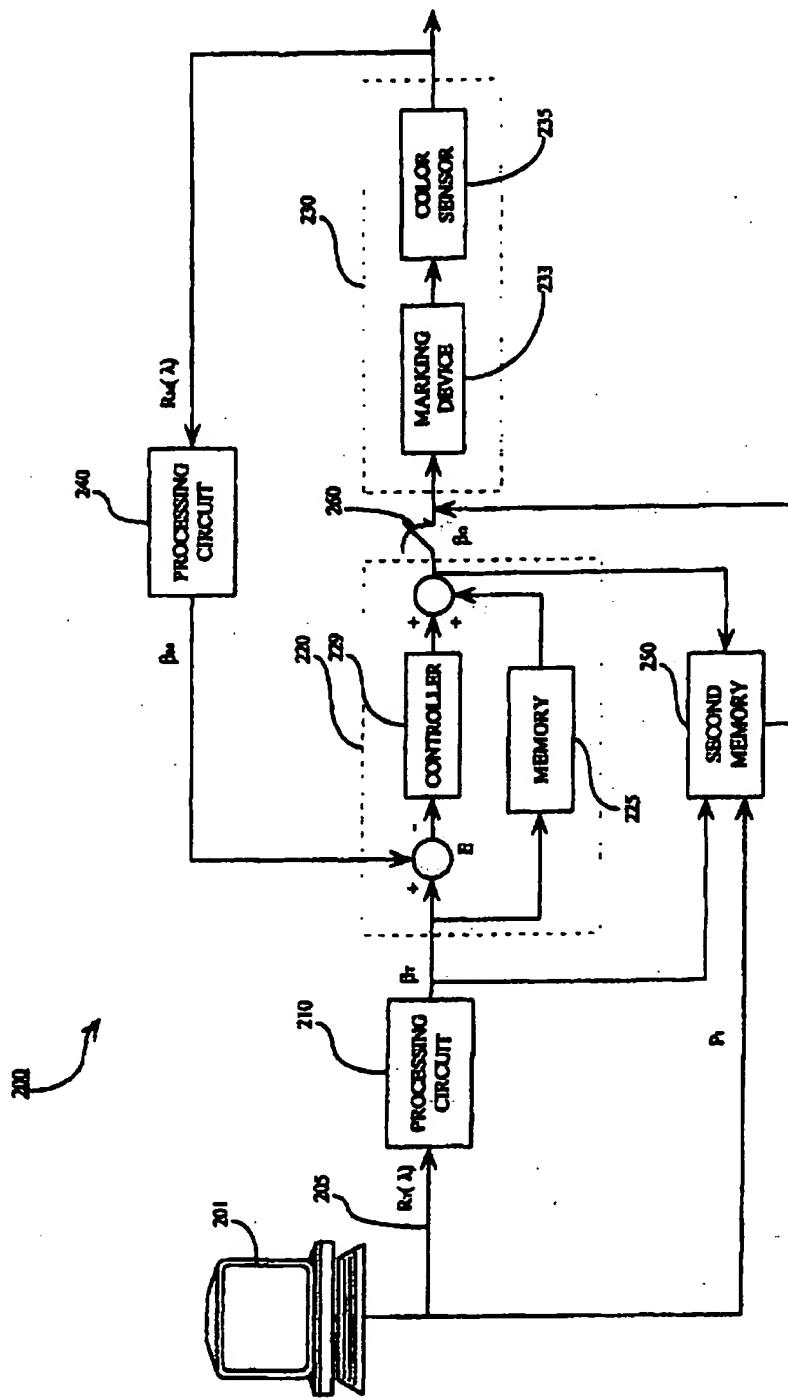
U.S. Patent

Aug. 23, 2005

Sheet 2 of 3

6,934,053 B1

FIG.2



U.S. Patent

Aug. 23, 2005

Sheet 3 of 3

6,934,053 B1

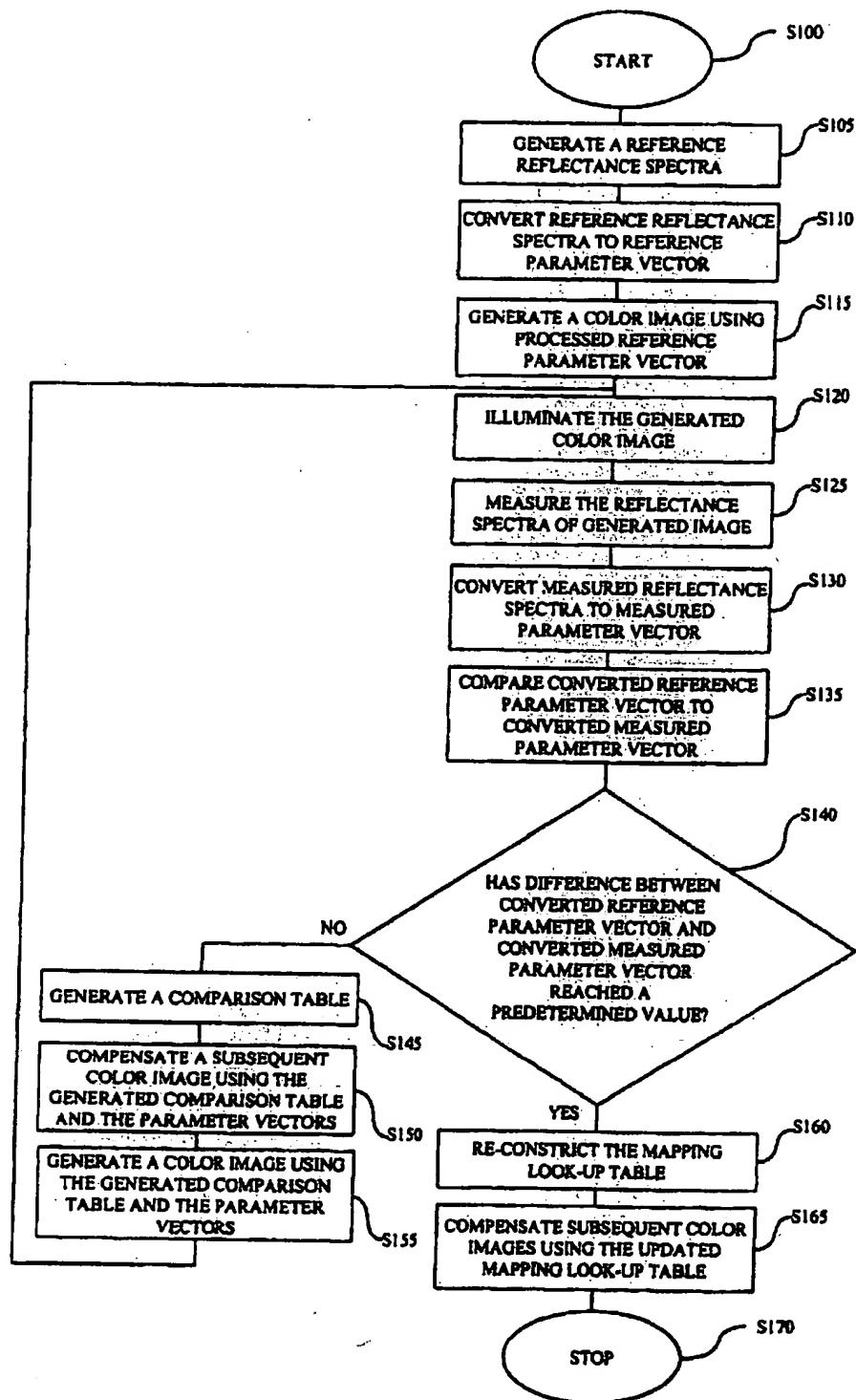


FIG. 3